Fall 2011 Levee Maintenance Deficiency Summary Report Overall LMA & Unit Ratings, including DWR Erosion Survey

San Joaquin River Basin

| RD0017 Reclamation District No. 0017 Mossdale | Overall LMA Rating | Total LMA Miles | | | | |
|---|------------------------|---------------------|----------------|-----------------|----------|----------|
| | A | 16.24 | | | | |
| Data d Mars | NA NA:1 | LLAGUe | NA . ALL NATIO | Th h - 1 - 1 0/ | Encroad | |
| Rated Item | M Miles | U Miles | M + 4U Miles | Threshold % | PO Miles | CO Miles |
| Earthen Levee Vegetation | 0.03 | | 0.03 | 0.19% | | |
| Trim / Thin Trees | 0.05 | | 0.05 | 0.31% | | |
| Encroachments | 0.01 | | 0.01 | 0.06% | | 0.32 |
| LMA Totals: | 0.09 | 0.00 | 0.09 | 0.55% | 0.00 | 0.32 |
| Unit No. 01 French Camp Slough LB | Overall Unit Rating | Total Unit Miles | | | | |
| RD0017 | Α | 1.79 | | | | |
| | | | | | Encroad | |
| Rated Item | M Miles | U Miles | M + 4U Miles | Threshold % | PO Miles | CO Miles |
| No Items | | | | | | |
| Unit Totals: | 0.00 | 0.00 | 0.00 | 0.00% | 0.00 | 0.00 |
| Unit No. 02 San Joaquin River RB | Overall Unit Rating | Total Unit Miles | | | | |
| RD0017 | A | 14.45 | | | | |
| | | | | | Encroad | |
| Rated Item | M Miles | U Miles | M + 4U Miles | Threshold % | PO Miles | CO Miles |
| Earthen Levee | 0.00 | | 0.00 | 0.040/ | 1 | |
| Vegetation | 0.03 | | 0.03 | 0.21% | | |
| Trim / Thin Trees | 0.05 | | 0.05 | 0.35% | | |
| Encroachments | 0.01 | | 0.01 | 0.07% | | 0.32 |
| Unit Totals: | 0.09 | 0.00 | 0.09 | 0.62% | 0.00 | 0.32 |

LMA District Cover Sheet

Fall 2011 Levee Inspection Results

| | Spring (March - May) | Summer ** (June - August) | Fall (September - November) | Winter ** (December - February) | | | | | |
|---|-------------------------|------------------------------|-----------------------------|---------------------------------|--|--|--|--|--|
| * Overall LMA Rating (Fall Only) | | | A | | | | | | |
| | ** Non-receipt of Su | ımmer or Winter Inspe | ection Reports may effec | ct overall annual rating. | | | | | |
| * SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall. FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. | | | | | | | | | |
| Comments | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Unit Cover Sheet

Fall 2011 Levee Inspection Results

Reclamation District No. 0017 Mossdale

| | Bank | Unit Miles | | | |
|--|--|--|---|---|-----------------------------|
| | Left | 1.79 | | | |
| | Spring (March - May) | Summer (June - August) | (September - November) Fall | | |
| Unit Maintenance Rating (Fall Only) | | | Α | | |
| Date of Inspection | 4/12/2011 - 4/12/2011 | | 10/24/2011 - 10/24/2011 | | |
| DWR Inspector | Richard Willoughby | | Richard Willoughby | | |
| Accompanied By | Robert Winter KSN Engineering | | Robert Winter KSN Engineering | | |
| Check one: | | | | | |
| project components conditions other that deficiencies identified. During the current with project components maintenance and the | identified in the attached Leven the results of our normal mailed in the enclosed report. vinter (or summer) inspection pridentified in the attached Levene corrections we have made to | ee Inspection Report by intenance and the corrependent of the corrependent of the corrependent of the corresponding to the correspondin | Mile. We have found no changections we have made to maint e inspected the levee and asso Mile. In addition to the results | ges in flo enance ociated fl of our no | ood project ood ormal |
| (In the comment see | ction below or on additional she | | | | |
| Comments | | | | | |
| information must also be s DWR with any additional s | submitted. This Unit Cover She sheets by September 30 (Sum all of this information to: | eet should be signed ar mer Inspection) or Maro WR Summer/Winter In 310 El Camino Avenue | nd dated by the LMA Represent ch 31 (Winter Inspection). Pleat aspection Reports e, Suite 200 | tative an | d returned to |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Spring (March - May) (June - August) (September - November) (December - February) Init Maintenance Rating (Fall Only) A Date of Inspection 4/12/2011 - 4/12/2011 10/24/2011 10/24/2011 10/24/2011 DWR Inspector Richard Willoughby Robert Winter (SN Engineering Report Winter KSN Engineering Robert Winter KSN Engineering Robert Winter Robert Robert Winter Robert Winter Robert Robe | | | | | |

Date

Signature of LMA Representative

Levee Inspection Report By Mile - Fall 2011

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|--------------------------------|------|------------|--------------------------|-----------------------|
| Unit No. 01 French Camp Slough | Left | 1.79 | 10/24/2011 10/24/2011 | Richard Willoughby |

| Levee Mile Start End Category | Item | Rati | Rati | Action/Comment | GPS Latitud | Issue No. | | | | |
|-------------------------------|-------|------|----------|----------------|-------------|--------------|---|-------|-----|-------|
| No. | Start | End | Calegory | ILCIII | tion | ng | Action/Comment | Start | End | Photo |
| 1 | 0.00 | 1.79 | Earthen | Vegetation | WS | Α | Remove the wild growth other than native grasses from | ۰ | 0 | 7 |
| | | | Levee | - | | | the levee slopes. | ٥ | 0 | Υ |

Levee Inspection Report By Mile - Fall 2011

Reclamation District No. 0017 Mossdale

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|--------------------------------|------|------------|--------------------------|-----------------------|
| Unit No. 01 French Camp Slough | Left | 1.79 | 10/24/2011 10/24/2011 | Richard Willoughby |

| Levee Mile Report Line | 1 |
|----------------------------|----------------|
| Start Levee Mile | 0.00 |
| End Levee Mile | 1.79 |
| Location | Water Side |
| Category | Earthen Levee |
| Item | Vegetation |
| Looking north a at typical | view of levee. |

richard_f_20111205_477.jpg

| Levee Mile Report Line | 1 |
|------------------------|---------------|
| Start Levee Mile | 0.00 |
| End Levee Mile | 1.79 |
| Location | Water Side |
| Category | Earthen Levee |
| Item | Vegetation |
| | |

Looking north at well maintained trees on waterside of levee.

richard_f_20111205_478.jpg

| Levee Mile Report Line | 1 |
|------------------------|---------------|
| Start Levee Mile | 0.00 |
| End Levee Mile | 1.79 |
| Location | Water Side |
| Category | Earthen Levee |
| Item | Vegetation |
| | |

Looking south at well maintained trees and levee slope.

richard_f_20111205_479.jpg







| * | Location |
|---|----------|
|---|----------|

WS : Water Side CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

Unit Cover Sheet

Fall 2011 Levee Inspection Results

| | Water | way | | Bank | Unit Miles | | | | |
|--|----------------------------------|---------------------------|---|------------|---------------------------|--|--|--|--|
| | Unit No. 02 San | Joaquin River | | Right | 14.45 | | | | |
| | Spring (March - May) | Summer (June - August) | (September - November) Fall | | Winter ber - February) | | | | |
| Unit Maintenance Rating (Fall Only) | | | Α | | | | | | |
| Date of Inspection | 4/14/2011 - 4/14/2011 | | 10/24/2011 - 10/24/2011 | | | | | | |
| DWR Inspector | Richard Willoughby | | Richard Willoughby | | | | | | |
| Accompanied By | Robert Winter KSN Engineering | | Robert Winter KSN Engineering | | | | | | |
| Check one: During the current winter (or summer) inspection period, my staff or I have inspected the levee and associated flood project components identified in the attached Levee Inspection Report by Mile. We have found no changes in flood project conditions other than the results of our normal maintenance and the corrections we have made to maintenance deficiencies identified in the enclosed report. During the current winter (or summer) inspection period, my staff or I have inspected the levee and associated flood project components identified in the attached Levee Inspection Report by Mile. In addition to the results of our normal maintenance and the corrections we have made to maintenance deficiencies identified in the report, we have found the following changes in flood project conditions. (In the comment section below or on additional sheet(s), identify change of condition by: Start to End Levee Mile or GPS coordinates, location (Land Side, Water Side, or Crown), Item identification, and description of the current condition). | | | | | | | | | |
| Comments | | | | | | | | | |
| information must also be | 3 | eet should be signed ar | nd dated by the LMA Represent of 31 (Winter Inspection). Pleast spection Reports e, Suite 200 | itative an | d returned to | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| x | | | | | | | | | |
| Signature of LMA Repres | sentative | | Date | | | | | | |

Levee Inspection Report By Mile - Fall 2011

| | | | | Wa | terwa | ау | | Bank | Unit Miles | Inspection Start/End | Inspec | tor |
|----------|---|-------------|------------------|--|----------|--------|--|--|--|---|--------------------------|-----------------------|
| | | | | Unit No. 02 Sa | an J | oaq | uin River | Right | 14.45 | 10/24/2011 10/24/2011 | Richar Willough | |
| LMR No. | Levee | Mile End | Category | Item | Location | Rating | Action/Comment | | | GPS Latitude/L | ongitude End | Issue No. Photo |
| 1 | 0.07 | 0.07 | Earthen Levee | Animal Control | LS | W | Exterminate rodents and backfill and comp burrows. | pact or (| | 37.915161 ° 37. 121.321595 ° -12 | 7.915161 ° 1.321595 ° | 7 |
| 2 | 0.46 | 0.46 | Earthen Levee | Animal Control | LS | W | Exterminate rodents and backfill and comp burrows. | pact or (| | 37.910190 ° 37.121.324424 ° -12 | 7.910190 ° 1.324424 ° | 8 |
| 3 | 0.68 | 0.69 | Supplementa | DWR Erosion Survey | WS | С | Inspector Comments: 08/23/2011: Repaire new signs of erosion. Vegetation and dead the site.9/07/2010: Site appears to have be by using shot rock as revetment along the There are some emergent vegetation at the Site was previously rated "M".9/29/2009: Uthe toe just above the existing rip rap; note housing development on the landside of learnal Atlas). [2011 Site ID:RD0017U02RM | d trees vote need to tree to the control of the con | visible on vaired slope. Ine. itting of s fer to | 37.907119° 3; 121.324224° -12° | 7.907119 ° 1.324224 ° | 5 |
| 4 | 2.89 | 2.89 | Supplementa | l DWR Erosion Survey | WS | С | Inspector Comments: 08/23/2011: The rep shows no sign of new erosion avtivity. Veg on the site.9/07/2010: Site has been repai was placed on site. Site was previously rat "M".9/29/2009: Pocket erosion just below abutment of Howard Road Bridge; existing concrete slabs in place; erosion may deve pocket erosion if no corrective action is tak ID:RD0017U02RM46.13] | getation ired. Sh ited and acr g toe rip elop into | visible ot rock oss the rap and a larger | 37.878234 ° 3; 121.331693 ° -12 ⁻ | 7.878234 ° 1.331693 ° | 6 |
| 5 | 4.24 | 4.27 | Earthen Levee | Encroachments | LS | СО | Landscaping | | | 37.863819 ° 37.121.320784 ° -12 | 7.863601 ° 1.320299 ° | 48 |
| 6 | 4.28 | 4.32 | Earthen Levee | Encroachments | LS | СО | Crops | | - | 37.863582 ° 37.121.320230 ° -12 | 7.862947 ° 1.319812 ° | 11 Y |
| 7 | 4.42 | 4.44 | Earthen Levee | Encroachments | LS | СО | Landscaping | | - | 37.861673 ° 37.121.320115 ° -12 | 7.861370 ° 1.320102 ° | 1 Y |
| 8 | 4.46 | 4.46 | Earthen Levee | Trim / Thin Trees | LS | М | Trim trees to at least five feet above groun | nd level. | | 37.861223 ° 37.121.319957 ° -12 | 7.861223 ° 1.319957 ° | 2 |
| 9 | 5.01 | 5.01 | Earthen Levee | Encroachments | LS | М | Prunings | | | 37.855343 ° 37.121.319845 ° -12 | 7.855343 ° 1.319845 ° | 3 |
| 10 | 5.55 | 5.55 | Earthen Levee | Trim / Thin Trees | LS | М | Trim trees over roadway to at least 12 feet level. | t above | | 37.850652 ° 37.121.320498 ° -12 | 7.850652 ° 1.320498 ° | 568 |
| 11 | 5.58 | 5.58 | Earthen Levee | Animal Control | LS | W | No rodents visible, but rodent burrows visil backfill and compact or grout burrows. | ible; nee | | 37.850118 ° 37.121.320188 ° -12 | 7.850118 ° 1.320188 ° | 76 |
| 12 | 5.62 | 5.85 | Earthen Levee | Encroachments | LS | СО | Landscaping | | - | 37.849472 ° 37.121.320159 ° -12 | 7.848582 ° 1.323647 ° | 54 Y |
| 13 | 5.77 | 5.77 | Earthen Levee | Vegetation | WS | W | Elderberries are blocking visibility and floo | od fight o | | 37.849267 ° 37.121.322590 ° -12 | 7.849267 ° 1.322590 ° | 19 |
| LS WS | cation S: Land S S: Water R: Crown | Side | | Rating A: Acceptable M: Minimally Acceptab U: Unacceptable | le C | O : C | artially Obstructing N : Not Inspected, see Inspector arch/Monitor | r Comment | t C : Correc | ted | | |

Levee Inspection Report By Mile - Fall 2011

Reclamation District No. 0017 Mossdale

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-------------------------------|-------|------------|--------------------------|-----------------------|
| Unit No. 02 San Joaquin River | Right | 14.45 | 10/24/2011 10/24/2011 | Richard Willoughby |

| LMR No. | Levee | Mile End | Category | Item | Location | Rating | Action/Comment | GPS Latitude/Longitude Start End | No. |
|---------|-------|-------------|------------------|-----------------------|----------|--------|--|---|-----|
| 14 | 7.51 | 7.51 | Earthen Levee | Trim / Thin Trees | LS | М | Trim trees to at least five feet above ground level. | 37.830350 ° 37.830350 ° -121.310880 ° | |
| 15 | 7.67 | 7.69 | Earthen Levee | Vegetation | LS | М | Elderberries are blocking visibility and flood fight capability. | 37.828095 ° 37.827920 ° -121.309945 ° -121.309847 ° | |
| 16 | 9.40 | 9.40 | Earthen Levee | Vegetation | LS | М | Elderberries are blocking visibility and flood fight capability. | 37.815243 ° 37.815243 ° -121.317470 ° -121.317470 ° | |
| 17 | 9.49 | 9.49 | Earthen Levee | Trim / Thin Trees | WS | М | Trim trees to at least five feet above ground level. | 37.815658 ° 37.815658 ° -121.318940 ° -121.318940 ° | |
| 18 | 9.99 | 10.00 | Supplemental | DWR Erosion Survey | WS | С | Inspector Comments: 08/23/2011: The repaired site shows no sign of new erosion activity. Vegetation visible on the site.9/07/2010: Site has been repaired by placing shot rock as revetment. Site was previously rated "M".9/28/2009: A 50 feet section of the lower slump has slumped just above existing rip rap; there is also a rip rap protection along the levee toe. [2011 Site ID:RD0017U02RM52.8] | 37.811165° 37.811165° -121.318605° -121.318605° | |
| 19 | 10.64 | 10.68 | Supplemental | DWR Erosion Survey | WS | C | Inspector Comments: 08/23/2011: The repaired site shows no sign of new erosion activity. Vegetation and trees visible on the site.09/07/2010: Site appears to have been repaired by placing shot rock revetment on the lower slope. Some emergent vegetation at the lower slope. Site was previously rated "U."08/05/2010: Recommended for annual assessment and monitoring during flood events, per CLRO.9/29/2009: No major change obsrved; erosion site is immediately upstream of a rehabilitation site; recommend annual monitoring of site, per Critical Erosion Sites Evaluation 2008 Report; note site # is the same as RM53.7; previously rated "U".20089: Observed to be caused by wave-wash erosion.2007: Visited site 06/07/2007; site could be combined with Site 32. [2011 Site ID:RD0017U02RM53.54] | 37.805740 ° 37.805740 ° -121.324240 ° | |
| 20 | 13.73 | 13.73 | Earthen Levee | Trim / Thin Trees | LS | М | Trim trees to at least five feet above ground level. | 37.775730 ° 37.775730 ° -121.298943 ° | |
| 21 | 14.02 | 14.26 | Earthen Levee | Animal Control | WS | W | Exterminate rodents and backfill and compact or grout burrows. | 37.774285 ° 37.773138 ° -121.295703 ° -121.291763 ° | |
| 22 | 14.04 | 14.44 | Earthen Levee | Animal Control | LS | W | Exterminate rodents and backfill and compact or grout burrows. | 37.774262 ° 37.772163 ° -121.295305 ° -121.289295 ° | |

Location LS : Land Side Rating

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

C : Corrected

Levee Inspection Report By Mile - Fall 2011

Reclamation District No. 0017 Mossdale

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-------------------------------|-------|------------|--------------------------|-----------------------|
| Unit No. 02 San Joaquin River | Right | 14.45 | 10/24/2011 10/24/2011 | Richard Willoughby |

| Levee Mile Report Line | 6 |
|------------------------------|-----------------------|
| Start Levee Mile | 4.28 |
| End Levee Mile | 4.32 |
| Location | Land Side |
| Category | Earthen Levee |
| Item | Encroachments |
| Grape vines on landside 4.32 | slope from LM 4.28 to |

richard_f_20111014_734.jpg

| Levee Mile Report Line | 6 | | | | | |
|--|---------------|--|--|--|--|--|
| Start Levee Mile | 4.28 | | | | | |
| End Levee Mile | 4.32 | | | | | |
| Location | Land Side | | | | | |
| Category | Earthen Levee | | | | | |
| Item | Encroachments | | | | | |
| Looking southoast at grapo vinos on landsido | | | | | | |

Looking southeast at grape vines on landside slope

richard_f_20111027_331.jpg

| 1 | | | | | | |
|---|---------------|--|--|--|--|--|
| Levee Mile Report Line | 6 | | | | | |
| Start Levee Mile | 4.28 | | | | | |
| End Levee Mile | 4.32 | | | | | |
| Location | Land Side | | | | | |
| Category | Earthen Levee | | | | | |
| Item | Encroachments | | | | | |
| Looking south at landscaping with grape vines on landside slope | | | | | | |

richard_f_20111027_332.jpg







LS : Land Side

WS : Water Side CR : Crown ** Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor N : Not Inspected, see Inspector Comment

C : Corrected

Levee Inspection Report By Mile - Fall 2011

Reclamation District No. 0017 Mossdale

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-------------------------------|-------|------------|--------------------------|-----------------------|
| Unit No. 02 San Joaquin River | Right | 14.45 | 10/24/2011 10/24/2011 | Richard Willoughby |

| Levee Mile Report Line | 6 |
|---|-------------------|
| Start Levee Mile | 4.28 |
| End Levee Mile | 4.32 |
| Location | Land Side |
| Category | Earthen Levee |
| Item | Encroachments |
| Looking northeast at den landside slope. | se landscaping on |

| richard | f | 201 | 11 | 027 | 333 | 3.jpq |
|---------|---|-----|----|-----|-----|-------|
| | | _ | | | _ | ,, 0 |

| Levee Mile Report Line | 7 |
|------------------------|---------------|
| Start Levee Mile | 4.42 |
| End Levee Mile | 4.44 |
| Location | Land Side |
| Category | Earthen Levee |
| Item | Encroachments |
| | |

Looking southeast at ground cover on landside slope.

richard_f_20111027_334.jpg

| Levee Mile Report Line | 7 |
|------------------------|---------------|
| Start Levee Mile | 4.42 |
| End Levee Mile | 4.44 |
| Location | Land Side |
| Category | Earthen Levee |
| Item | Encroachments |
| | |

Looking southwest at landscaping and boat dock on waterside slope and channel.

richard_f_20111027_335.jpg







| * Location | | | | |
|-----------------|--|--|--|--|
| LS : Land Side | | | | |
| WS : Water Side | | | | |
| CR : Crown | | | | |

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

Levee Inspection Report By Mile - Fall 2011

Reclamation District No. 0017 Mossdale

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-------------------------------|-------|------------|--------------------------|-----------------------|
| Unit No. 02 San Joaquin River | Right | 14.45 | 10/24/2011 10/24/2011 | Richard Willoughby |

| Levee Mile Report Line | 12 | |
|---|-------------------|--|
| Start Levee Mile | 5.62 | |
| End Levee Mile | 5.85 | |
| Location | Land Side | |
| Category | Earthen Levee | |
| Item | Encroachments | |
| Looking south at overgro waterside slope. | wn landscaping on | |
| richard f 20111027 336.jpg | | |

| Levee Mile Report Line | 12 | | |
|---|---------------|--|--|
| Start Levee Mile | 5.62 | | |
| End Levee Mile | 5.85 | | |
| Location | Land Side | | |
| Category | Earthen Levee | | |
| Item | Encroachments | | |
| Lastrias wast at landassains an waterside slane | | | |

Looking west at landscaping on waterside slope.

richard_f_20111027_337.jpg

| Levee Mile Report Line | 15 | | |
|--|---------------|--|--|
| Start Levee Mile | 7.67 | | |
| End Levee Mile | 7.69 | | |
| Location | Land Side | | |
| Category | Earthen Levee | | |
| Item | Vegetation | | |
| Elderberry blocking view of landside slope and | | | |

toe from LM 7.67 to 7.69









| * Location | | |
|-----------------|--|--|
| LS : Land Side | | |
| WS : Water Side | | |
| CR : Crown | | |

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment